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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,208	07/06/2001	Mikio Okada	Q65355	3580

7590 02/18/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037-3213

EXAMINER
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WEINER, LAURA S

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/899,208

Applicant(s)

OKADA, MIKIO

Examiner

Laura S Weiner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

2. Claims 2, 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Saidi et al. (5,976,489) or Sun et al. (6071,489).

Saidi et al. teaches in column 1, lines 17-25, a lithium battery comprising a negative electrode, a positive electrode and an electrolyte interposed between electrically insulated, spaced apart, positive and negative electrodes. Saidi et al. teaches in column 4, lines 36-40, that Figure 4 teaches a cathode having lithium manganese oxide active material cycled against a metallic lithium anode. Saidi et al. teaches in column 14, lines 64-67, that the lithium manganese oxide compound having a spinel unit structure is represented by the formula  $\text{Li}_x\text{Mn}_a\text{O}_b$  where  $x$  is  $0.9 \leq x \leq 1.1$ ,  $a$  is  $1.9 \leq a \leq 2.1$  and  $b$  is  $3.9 \leq b \leq 4.1$ .

3. Claims 2, 4, 6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Sun et al. (6071,489).

Sun et al. teaches in column 17, lines 23-40, a lithium polymer secondary battery comprising a composite cathode,  $\text{Li}_x\text{Mn}_2\text{O}_4$  on an aluminum foil, a lithium electrode

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and a solid polymer electrolyte between the composite cathode and lithium electrode.

Sun et al. teaches in column 16, line 67 to column 17, lines 1-3, that the negative electrode comprised a lithium metal foil. Sun et al. teaches in column 11, lines 45-50, that the composite cathode was  $\text{Li}_{1.03}\text{Mn}_2\text{O}_4$ .

### ***Claim Rejections - 35 USC § 103***

4. Claims 1, 3, 9-11, 14, are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Saidi et al. (5,976,489) or Sun et al. (6071,489).

Saidi et al. teaches in column 1, lines 17-25, a lithium battery comprising a negative electrode, a positive electrode and an electrolyte interposed between electrically insulated, spaced apart, positive and negative electrodes. Saidi et al. teaches in column 4, lines 36-40, that Figure 4 teaches a cathode having lithium manganese oxide active material cycled against a metallic lithium anode. Saidi et al. teaches in column 14, lines 64-67, that the lithium manganese oxide compound having a spinel unit structure is represented by the formula  $\text{Li}_x\text{Mn}_a\text{O}_b$  where  $x$  is  $0.9 \leq x \leq 1.1$ ,  $a$  is  $1.9 \leq a \leq 2.1$  and  $b$  is  $3.9 \leq b \leq 4.1$ .

Since Saidi et al. teaches a battery comprising a negative electrode, a positive electrode and an electrolyte where the negative electrode, a metallic lithium anode and the positive electrode are connected through the electrolyte then inherently the metallic lithium would be electrically connected to the positive electrode.

In addition, the presently claimed property of metallic lithium electrically connected to the positive electrode would have obviously have been present once the Saidi et al. product is provided. *In re Best*, 195 USPQ 433 (CCPA 1977).

5. Claims 1, 3, 5, 7, 9-15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Saidi et al. (5,976,489) or Sun et al. (6071,489).

Sun et al. teaches in column 17, lines 23-40, a lithium polymer secondary battery comprising a composite cathode,  $\text{Li}_x\text{Mn}_2\text{O}_4$  on an aluminum foil, a lithium electrode and a solid polymer electrolyte between the composite cathode and lithium electrode. Sun et al. teaches in column 16, line 67 to column 17, lines 1-3, that the negative electrode comprised a lithium metal foil. Sun et al. teaches in column 11, lines 45-50, that the composite cathode was  $\text{Li}_{1.03}\text{Mn}_2\text{O}_4$ .

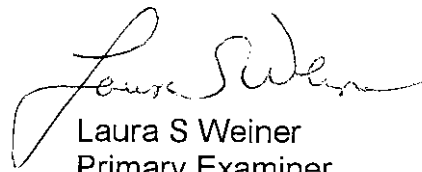
Since Sun et al. teaches a battery comprising a negative electrode, a positive electrode and a solid polymer electrolyte where the negative electrode, a metallic lithium anode and the positive electrode are connected through the electrolyte then inherently the metallic lithium would be electrically connected to the positive electrode.

In addition, the presently claimed property of metallic lithium electrically connected to the positive electrode would have obviously have been present once the Sun et al. product is provided. *In re Best*, 195 USPQ 433 (CCPA 1977).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura S Weiner  
Primary Examiner  
Art Unit 1745

2-10-04